



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,905	11/16/2001	Thomas Fazal	02310.0053	7803
51871	7590	05/12/2009	EXAMINER	
Shumaker & Sieffert, P.A. 1625 Radio Drive, Suite 300 Woodbury, MN 55125			ROBERTSON, DAVID	
ART UNIT	PAPER NUMBER			
	2121			
MAIL DATE	DELIVERY MODE			
05/12/2009	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/987,905	Applicant(s) ADENDORFF ET AL.
	Examiner Dave Robertson	Art Unit 2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

Status

- 1) Responsive to communication(s) filed on 2/18/2008.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,4,6,7,15-18,21,23,24,29,30,36,37,40,41,46 and 49-59 is/are pending in the application.
 4a) Of the above claim(s) 1, 4, 6, 7, 15-18, 21, 29, 30, 36-37, 46, and 49-59 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 23, 24, 40, 41, and 59 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

1. This is a Final office action in response to Applicant's reply of 2/18/2008.
2. Status of claims from the Amendment of 10/08/2008 and after Election of 2/18/2008 is as follows: Claims 1, 4, 6, 7, 15-18, 21, 23-24, 29, 30, 36-37, 40, 41, 46, and 49-59 are pending; Claims 1, 4, 6, 7, 15-18, 21, 29, 30, 36-37, 46, and 49-58 are withdrawn; Claims 23, 24, 29, 40, 41, and 59 are examined herein.

Election/Restrictions

3. Applicant's election without traverse of Group II, Claims 23, 24, 29, 30, 36, 37, 40, and 59, in the reply filed on 2/18/2009 is acknowledged. Of Group II, claims 23, 24, 29, 40, 41, and 59 remain pending (see claims filed 10/08/2008 withdrawing claims 30, 36 and 37).

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

Art Unit: 2121

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 23, 24, 29, 40, 41, and 59 are provisionally rejected on the ground of nonstatutory double patenting over claim 36, 37, and 39 of copending Application No. 09/987,908. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: Claim 23 of the instant invention recites a method of building a data warehouse using a business model reciting the steps of first building the business model. Claim 36 of the reference application claims building a business model for a data warehouse reciting substantially identical steps of building the business model. The claims differ only in that claim 23 of the instant information recites *the data model having settable placeholders*. However, one of ordinary skill in the art would have recognized that any data model implemented from a business model has settable placeholders, as a data model is a data structure and data structure in implementation is a set of data fields which are *settable*.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other

copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Response to Amendment

6. Claims 23, 40, and 41 have been so substantially amended as to replace the body of the claims previously submitted with new subject matter. However, certain of Applicant's arguments as to matters as to form, clarity and statutory subject matter remain and are addressed below.

Response to Arguments

7. Applicant's arguments filed 10/08/2008 have been fully considered but they are not persuasive:

8. Applicant's arguments with respect to claim 1-22, 25-28, 30-39, and 42-45 in the response filed 10/08/2008 are moot in view of the claims having been cancelled or withdrawn by amendment and election.

9. Applicant's arguments with respect to claim 41 rejected as vague and indefinite under 35 U.S.C. 112, second paragraph, and under 35 U.S.C. 101 as failing to recite statutory subject matter has been considered but are not persuasive:

Claim 41 as amended recites: *A computer program recorded on a computer readable medium for use in implementing a data warehouse system, the data warehouse system comprising: a business model...; a data model...; and a configuration unit.* The body of the claim recites only what comprises *the data*

warehouse system, not what comprises *the computer program recorded on a medium* as recited in the preamble. The body of the claim also fails to recite the *system* as comprising any structure, which amounts to a disembodied collection of elements where the elements of the claimed system, a *business model*, a *data model*, and a *configuration unit* are abstract concepts, arrangements of data, and computer program per se. As such, the invention as claimed remains both indefinite under 35 U.S.C. 112 and non-statutory under 35 U.S.C. 101.

10. Applicant's argument with respect to claims 23, 40, and 41 rejected under 35 U.S.C. 101 as failing to clearly recite statutory subject matter has been considered but is not persuasive:

Merely adding "building the data warehouse" to claims 23 and 40, and a "configuration unit" to claim 41 does not render the claims statutory because "final results are achieved." (Remarks, page 17). As explained in the OA of 7/22/08 (pg. 6), the claims were rejected based on Supreme Court precedent and recent Federal Circuit Decisions, the claims lacking a sufficient tie to another statutory class of invention or transforming subject matter to a different state or thing. Therefore, Applicant's argument as to claim reciting a useful, concrete, and tangible result is moot.

Applicant's argument with respect to claim 41 is addressed above.

11. Applicant does not traverse Examiner's assertion of facts by official notice in the prior office action (see OA of 7/22/08, pg. 9). Because Applicant has not specifically

Art Unit: 2121

pointed out any errors in the Examiner's taking of Official Notice, the officially noticed facts are deemed admitted prior art. See MPEP § 2114.03 (C).

12. Applicant's arguments with respect to claims 23, 24, 29, 40, 41, and 59 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 40 and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 40 recites in the preamble: *A computer-readable medium storing instructions or statements for execution in a computer of a method for building a data warehouse ..., the method comprising steps of....* However, it is unclear as to what statutory class of invention is being claimed, process (*method*) or manufacture (*computer readable medium*) because the body of the claim fails to recite any steps of the *method for a business model* as being performed by the computer or involving the medium in any way. It is also unclear whether *instructions or statements for use in the computer* refer in any way to the method as claimed or the relationship between the computer and the medium with respect to executing the method. Because the claim recites steps of a method, the claim will be interpreted as such.

Claim 41 recites: *A computer program recorded on a computer readable medium for use in implementing a data warehouse system, the data warehouse system comprising: a business model...; a data model...; and a configuration unit.* However, it unclear what exactly is being claimed. The body of the claim recites only what comprises the data warehouse system, not what comprises the computer program recorded on a medium as suggested by the preamble. Furthermore, the claim fails to recite the *system* as comprising any structure. As such, the claim is indefinite as to which statutory class of invention in being claimed, and further indefinite for failure to recite sufficient structure for the claimed system, amounting to a disembodied collection of abstract concepts.

Appropriate amendment is requested.

Claim Rejections - 35 USC § 101

15. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

16. Claims 23, 24, 29, 40, 41, and 59 are rejected under 35 U.S.C. 101 based on

Supreme Court precedent, and recent Federal Circuit decisions:

For a process to be patentable subject matter under § 101 the process must (1) be tied to another statutory class of invention (such as a particular apparatus) or (2) transform subject matter to a different state or thing. See *Diamond v. Diehr*, 450 US 175, 184 (1981); *Parker v Flook*, 437 US 584, 588 n9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 US 780, 787-88 (1876). If neither of these requirements is met by the claim, the method is not a patent eligible process. To qualify under § 101 as a statutory process, the claim should positively recite the other statutory class (the thing or product) to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is

Art Unit: 2121

being transformed, for example by identifying the material that is being changed to a different state.

Claim 23 fails to recite transforming subject matter to a different state or thing or positively recite a sufficient tie to another statutory class of invention, such as a particular apparatus. The steps of claim 23 refer only to the gathering and arranging information into a "business model" with no step being performed by any particular apparatus or transforming subject matter to a different state or thing. As such, the method could be performed entirely by a human, by hand, or by mental steps; therefore the invention as claimed is ineligible for patenting and thus nonstatutory subject matter under 35 U.S.C. 101. Claims 24, 29, and 59 depend from claim 23 and are similarly deficient.

Claim 40 recites in the preamble: *A computer-readable medium storing instructions or statements for use in the computer of a method for a business model for a data warehouse, the method comprising steps of....* As properly interpreted above under 35 U.S.C. 112, second paragraph, this method claim fails to recite any substantive step as performed by the computer or involving the medium in any way. (Mere recitation of an apparatus (a computer) or an article (a medium) in the preamble of a claim does not transform an unpatentable process into a patentable process. Insignificant extra-solution activity (even if recited which is not the case here) such as data gathering, data output, transmitting or display on a computer, does not transform an unpatentable process into a patentable process.) Taken together with recitation of the medium storing merely *instructions or statements for use in the computer of a method...* in the preamble, the claim is instead directed to an unpatentable process

Art Unit: 2121

where "instructions" (a written text description of the method, such as the claim itself) may incidentally be stored on a medium "for use by" a human using a computer to access the instructions for the human to perform. That is, the claim is instead directed to a method of building a business model... (as in claim 23), as is rejected under 35 U.S.C. 101 as above for claim 23, as being directed to non-patentable subject matter.

17. Claim 41 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter:

Claim 41 recites: *A computer program recorded on a computer readable medium for use in implementing a data warehouse system, the data warehouse system comprising: a business model...; a data model...; and a configuration unit.* However, the body of the claim recites only what comprises the data warehouse system, not what comprises the computer program recorded on a medium as suggested by the preamble. Furthermore, the claim fails to recite the *system* as comprising any structure. The elements of the claimed system, a *business model*, a *data model*, and a *configuration unit* are abstract concepts, arrangements of data, and computer program per se. As such, the claim fails to recite elements of the medium or sufficient structure of the system, thereby amounting to a disembodied collection of nonstatutory subject matter.

Amendment is requested.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 23, 24, 29, 40, 41, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richard Kimball, The Data Warehouse Lifecycle Toolkit, Wiley:1998, in view of Kimball The Data Warehouse Toolkit" Practical Techniques for Building Dimensional Data Warehouse, Wiley: 1996.

The Kimball texts were submitted in their entirety in the IDS of 06/21/2002 and are reference herein as such. Examiner also notes that citations to passages in Kimball are for the convenience of Applicant. Applicant is advised to consider the Kimball references in their entirety as they teach comprehensively over building data warehouses for managing the performance of organizations, including building dimensional data warehouses configurable for a particular organization from database bus architecture from conformed dimensions as set forth in the following. Applicant is encouraged to further consider any particular aspects of improvement in the claimed implementation of concepts taught by Kimball in the response to this office action.

Claim 23

Kimball teaches a method of building a data warehouse for managing performance of organizations, the method comprising the steps of:

analyzing the particular organization to collect organizational information

(see Chapter 4 "Collecting the Requirements");

determining business questions based on the collected organizational information (see Chapter 4, e.g. Figure 4.2 on page 105 listing specific business questions to ask during interviews of organizational players);

merging the business questions into a subset of areas of analysis of a business model applicable to the particular organization (see Chapter 4, esp. page 128 and Figure 4.6 "merging" the results of organizational interviews to requirements);

decomposing the subset of areas of analysis into dimensions and measures, the dimensions representing business reference aspects of the particular organization, the measures representing measurements of business activity aspects of the particular organization (see Chapters 5-7 teaching comprehensively over dimensional modeling of the business reference aspects of an organization, as depicted by Figures 5.1 and 5.2, and "Facts" (page 165 inter alia) as "measures" of the business activity of the organization);

providing a predefined set of shared common dimensions representing business reference aspects of a plurality of organizations, the plurality of organizations including the particular organization (see Chapter 5, esp. pages 153-160 describing Kimball's "Data Warehouse Bus Architecture", a set of shared, common dimensions from which a plurality of organizations may build data marts from shared "conformed" dimensions);

providing a second predefined set of measures representing measurements of business activity aspects of the plurality of organizations, the second predefined set of measures grouped into areas of analysis including the subset of areas of analysis merged from the business questions of the particular organization (see Chapter 5, pages 153-160, esp. page 158 "Designing the Conformed Dimensions" providing a "set of master conformed dimensions for the enterprise" using the data warehouse bus architecture to select a set of measures (facts with attributes) from which to represent the subset of areas of analysis for the particular organization within an enterprise);

providing a data model implementing the business model, the data model including fact tables and dimension tables, the dimension tables corresponding to the dimensions of the business model the fact tables including the measures (see page 165, *inter alia*);

the data model having settable placeholders (see page 165 and attributes of dimensions "Time" and "Store" of Figure 5.3, Time and Store dimensions have settable attributes);

storing data representing dimensions and measures applicable for multiple organizations, the placeholders settable such that the data warehouse data model represents a particular organization (see above; storing data for multiple organizations within an enterprise is the express aim and detailed design of Kimball's data bus architecture of conformed dimensions);

and setting the placeholders such that the data model representing [sic] the particular organization (see page 165 and attributes of dimensions "Time" and "Store" of Figure 5.3, Time and Store dimensions have settable attributes);
and building the data warehouse using the data model (see Chapter 7 "Buliding Dimensional Models").

Kimball ('98) does not expressly teach **Selecting a market or identifying a particular organization in the market**. Kimball ('98) instead teaches building a data warehouse bus architecture using conformed dimensions using as an example a Retail Application (see Figure 5.1) and instead focusing on the process of building the enterprise data warehouse using the conformed dimensional data bus architecture concept. Kimball ('96), however, expressly teaches building a data warehouse application for multiple application areas (i.e. "markets"), including the "Grocery Store" market (chapter 2), "The Warehouse" (inventory) market (chapter 3), "Shipping" (chapter 4), "Financial Services" (chapter 7), and "Subscription Businesses" (chapter 8). Kimball '96 teaches that each of these application areas or "markets" has both common dimensions and market specific dimensions. In view of Kimball '96, it would have been obvious to one of ordinary skill in the art at the time of the invention that once a data warehouse bus architecture was designed and constructed for one "market", the same data warehouse bus architecture would have been applicable to a particular organization within that market, and conversely, that both common and specific dimensions would result in data warehouse bus architectures for any selected market.

That is, one of ordinary skill in the art would have recognized the predictable result of applying Kimball '98 to any one or several of the markets identified in Kimball '96, with the benefit to each market being a methodical and detailed approach to the successful construction and implementation of data marts for multiple organizations of an enterprise, for each enterprise in the selected market. Kimball's data bus architecture of conformed dimensions expressly providing for building a data warehouse system configurable for different business aspects from a common architecture, thereby providing reuse and consistency among organizations of similar needs (markets), while providing particular organizations the ability to configure the data warehouse for their particular needs.

Claim 24

Kimball teaches **the step of providing placeholders in the dimensions of the data model** (see page 165 and attributes of dimensions "Time" and "Store" of Figure 5.3, Time and Store dimensions have settable attributes).

Claim 29

Kimball teaches **wherein the step of providing the data model comprises at least one step of:**

providing a placeholder in the data model to reflect a fiscal pattern of the particular organization;

providing a placeholder in the data model to reflect a common currency used by the data warehouse data model (see page 248 "Multiple Currency Tracking");

providing a placeholder one or more placeholders in the data model to reflect a category defined by a user, the category used to analyze information in the data model; and

aggregating amounts loaded into the data model (see pages 543-567).

Claim 59

Kimball teaches wherein a dimension of the predefined set of shared common dimensions includes a placeholder settable to reflect at least

one of:

a fiscal pattern of the particular organization (see Figure 7.4);

a common currency used by the data warehouse data model (see page 248 "Multiple Currency Tracking");

one or more categories defined by a user, the categories used to analyze information in the data warehouse data model;

and one or more multipliers used by the data warehouse data model.

Claims 40 and 41 recite computer-readable medium storing instructions for performing substantially the steps of the method claims as above, and is similarly rejected for reasons given above, and further that Kimball teaches a configuration unit configuring data model representing [sic] the particular organization (see page 578, inter alia, "Use a Data Modeling Tool" to "Design the Physical Data Structure" in Chapter 15 "Completing the Physical Design" and noting that Kimball's teachings would be inoperable lacking a "configuration unit" of some kind for setting attributes and fact

tables for the particular organization prior to deployment of the data warehouse system to the enterprise).

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Robertson whose telephone number is (571)272-8220. The examiner can normally be reached on 8 am to 6 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Albert DeCady/
Supervisory Patent Examiner, Art
Unit 2121

/Dave Robertson/

Examiner, Art Unit 2121